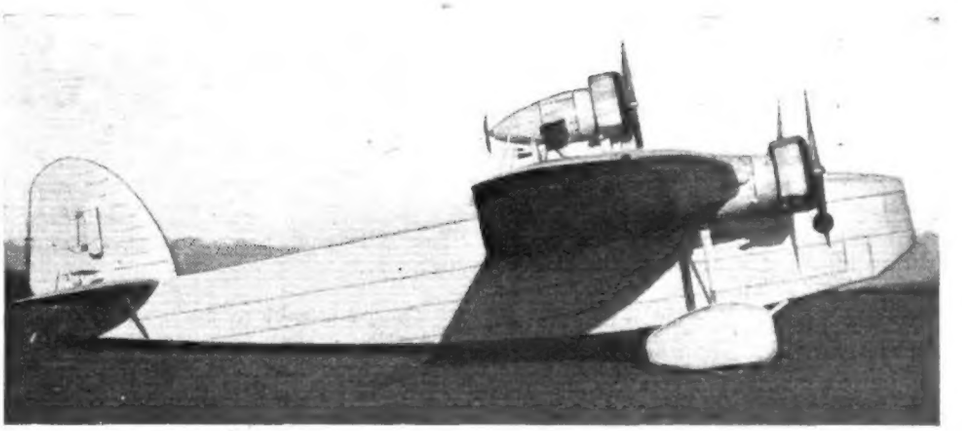
ally, the Potez 54 already mentioned has also been produced as a civil type for that company and is now in service.

The great majority of the new French bombers are of metal construction, even to their skins, but one of the newest of them—a Farman product known as the type 420—is of wood. With two of the new Gnome-Rhone 14 Krsi radials of about 900 h.p. it does between 210 and 220 m.p.h. at 13,000 ft. and is reported to be an exceptionally sturdy machine. On test it was dived up to 290 m.p.h. Fully loaded it weighs about 1,600 lb. less than our Heyford.

And what of the Italian bombers which, of late, have been the talk of the town? Certain of the new and experimental types, there is no doubt, show considerable merit, in performance at least. The squadrons, however, for the most part are still using a variety of obsolescent machines, although it seems that the Savoia Marchetti S.81, which is generally similar to the triple-engined Savoias used by Sabena, is already going into service. This type, it may be recalled, is a low-wing cantilever monoplane with a fixed undercarriage. The military machine is fitted with three Alfa Romeo 125 RC radials (Bristol Pegasus built under licence) and is claimed to do 217 m.p.h. at 13,000 ft. Figures for range and bomb load have not come to hand, but the civil machine, with three Piaggio Stellas of similar power, carries 3,960 lb. in the shape of passengers and baggage and, with full tanks, has a range of 994 miles.



The Dornier Do.Y bomber (top) did 155 m.p.h. with three Jupiters of an old type. Three Piaggio Stella IX RC 560 h.p. radials with two-stage superchargers give the Italian Piaggio P.16 (below) a speed of 248 m.p.h. at 16,400 ft.

The Piaggio concern, ever noted for originality, has built a very fast three-engined bomber which does 248 m.p.h. at 16,400 ft. Carrying a 2,200 lb. bomb load it can fly for 930 miles, but with half that weight of bombs is said to be able to make 1,242 miles. Unorthodox features include a centre section which tapers in thickness and is set at a negative dihedral angle and a gunner's position in the rear of the fuselage directly beneath the fin, which gives the tail a curious "cocked-up" appearance. The Piaggio Stella IX RC 40 radials with which it is equipped are furnished with two-stage superchargers and drive controllable pitch airscrews.

There have been stories of bomber versions of the great Savoia S74 monoplane used by Ala Littoria and of the smaller type of three-engined Savoia which recently gained for Italy a substantial batch of speed-with-load records. In civil guise these machines do 205 m.p.h. and 267 m.p.h. respectively, which means that the latter is just about as fast as our Bristol 142, although it is rather larger and heavier.

Fitted with four Hispano Suiza 12 Ybrs engines of 860 h.p. the Potez 41 bomber, which met with disaster, weighed 37,400 lb. fully laden and was capable of over 190 m.p.h. at 13,120 ft. Its undercarriage was retractable.

COMBATING AIRSCREW ICE

IN co-operation with the American industry, the U.S. Bureau of Air Commerce has developed a device for clearing the ice which forms on airscrew blades.

This consists of a "slinger ring" which provides for a continuous flow of anti-ice solution. Three tubes extend from the ring along the leading edges. On the whole, it is very similar to the device which has been developed by Mr. Lockspeiser and which is being marketed by the Dunlop company.

Incidentally, it may not be generally known that the Goodrich company, which was responsible for the first production de-icer, operates a refrigerated wind tunnel for icing experiments, and this company has secured the contract for the manufacture of the new airscrew protector.